HBC Augmentation meeting
Feb 13, 2003 - Phoenix, AZ
Notes provided by Randy Peterson
(Italicized wording in notes was made by Sam Spiller for clarity or per direction from reviewers)

The group discussed a number of topics as it explored the various steps that would be required if a decision were made to remove HBC from Grand Canyon National Park for use as research, grow-out, refugium, or captive breeding.

# Compliance

Sponholtz – Discussion about FWS policy on captive breeding of endangered species, noting that for such to occur, it may need to be identified as part of the recovery plan. FWS allows exemption from policy <u>if</u> holding of fish is short term. Simmonds agreed that going through the process is the best path. Sponholtz felt that the recovery goals supercede the previous recovery plan. Taubert requested some plan or information on the subject from Simmonds so Shroufe can discuss with Morganweeck.

Bills -> doesn't want to spend a lot of time modifying the recovery plan if not needed for augmentation. Sees a need for interpretation of policy.

Spiller -> need (1) biological review and synthesis of population estimates, including the issues raised in the recovery goals (trend in adult HBC population, estimated recruitment, and core population point estimates) and (2) legal/policy review of what options are available to FWS regarding taking HBC for grow out, refugium, or captive breeding. Bills -> there is potential for the AMWG to propose actions (such as those above) outside the recovery goal process. Metz -> Questioned if we need to reconcile the recovery goals with the second population element of the 1994 BO. Peterson -> We intend to wait until any legal concerns with the recovery goals are resolved before we address any consistency issues.

#### Timing

Crew will be in LCR in Sept/Oct 2003, earliest possible date for removal of any HBC.

Sponholtz – what are the criteria for making the decision? Taubert -> thought we had crossed that point during the last AMWG meeting (AMWG did make a formal recommendation to Secretary Norton regarding the development of a captive breeding program). Doesn't want to be in the position 4 years from now wishing we had taken action. Believes triggers for taking action have already been met.

### **Genetics Issues**

Yesterday's discussion seemed to indicate that the 30-mile population should be the source for the refugium. Valdez -> That population was estimated 10-years ago at 50 fish; still catching a few fish today, but they are all large adults.

Sponholtz – how important is imprinting? Valdez -> post-larval fish will have already imprinted.

Gloss – no evidence of differences in HBC genetics throughout the entire basin – encouraged removal of fish from various populations throughout the basin. Reminded folks of Simmonds' proposal to address details of augmentation, report from FWS expected by June 1. However, there is possibility that there are some undocumented genetics differences, with divergence in both genotypes and phenotypes during last 50 years. Taking basinwide fish now would have minimal impacts on these other populations.

Valdez - you need at least one exchange of individuals in a generation period

**Goals of Effort** 

Persons – (1) save fish as potential refugia, (2) use facility as grow out.

Taubert – overall goal is to have maximum flexibility in supporting HBC population. Listed 5 specific goals: (1) research, (2) grow out for augmentation, (3) mitigation to minimize incidental take, (4) maintenance of genetic stock, and compliance with the 1994 Biological Opinion; and (5) compliance with the 1994 Biological Opinion. Several options exist for action, a research effort under an existing research permit, minimization of take incidental to another action, an effort to comply with the second spawning aggregation provision of the 1994 BO (currently in potential conflict with the Recovery Goals), or as an intermediate grow-out effort until the TCD was completed. Further discussion identified this last item as a promising goal. If, in the future, the TCD does not provide the expected benefits, a remnant of the grow-out fish could be retained to form the basis for a future captive breeding population.

## **Recovery Goal Implications**

Valdez – Meetings were held in conjunction with recovery goals to address augmentation. Back then there was no perceived need for augmentation. Upper Basin folks don't see that need today either.

Simmonds – current population estimates are at 2000 fish > 200 mm, very close to threshold of recovery goals for downlisting. *Indicated it will be difficult to justify a "crisis" for the LCR population when it is so close to the target population size identified in the recovery goals.* Taubert – we need to determine if the HBC is in a crisis situation (low numbers) or we are nearly ready for downlisting. Simmonds – the hatchery policy was implemented so we don't rely on artificial propagation.

Action -> GCMRC will prepare updated synthesis presentation for next TWG meeting and next HBC comprehensive planning meeting.

Gloss – 2002 spring estimates were 2000 HBC > 200 mm, in contrast to 850 fish for the fall estimate. This estimate of 2000 fish compares to the year 2001 estimate of 1100 fish. The quantification of the first acceptable point estimate by FWS will be a crucial step in the recovery goal process.

Bills – recovery plan/goals are actions to be taken to allow delisting and downlisting. BOs address the taking of species, which then require the minimizing of take. The action agency can offer ideas for offsetting the take associated with their proposed action. This would be allowable under the BO. Simmonds -> concern that any approach we advocate must fit within FWS policy as published in the Federal Register.

### **Action Items**

- FWS will draft a response from the Department of the Interior (working through Mike Gabaldon) regarding the captive breeding recommendation from the AMWG in Mike Gabaldon's memo of July 1, 2002 to Secretary Norton. Debra Bills will also address the FWS policy of hatchery augmentation.
- Schedule meeting on March 6, 2003 to talk about what type of research needs to be done and goals of that research as a near term step to conserve the HBC. (This meeting was subsequently reframed as an opportunity to meet with Carl Walters and Josh Korman to discuss the stock assessment modeling and population estimation.)
- Add HBC population trends, recovery goals, and FWS captive breeding policy agenda items to April AMWG meeting.
- Clarify the justification and logic for implementing the removal/growout/holding proposal for potential future captive breeding. As authority and justification, use the statement on page 3 of the Recovery Goals, "The adaptive management program takes finding of the GCMRC as information for dam reoperations and conservation of the endangered fishes." Proposals for the conservation of HBC will be made through the AMP.